

What is claimed is:

1. An exposure control method in a lithography system having a resist coating and developing apparatus, a wafer transferring mechanism and an exposure control apparatus,

5 comprising the steps of:

transmitting resist film temperature data from the resist coating and developing apparatus to the exposure control apparatus;

determining resist film exposure time responsive to the resist film temperature data; and

exposing the resist film to a light source for the determined resist film exposure time.

2. The method as claimed in claim 1, wherein the temperature data are provided from temperature sensors disposed in the resist coating and developing apparatus.

3. The method as claimed in claim 1, wherein the temperature data are for a soft bake, a post exposure bake and a hard bake of the resist film.

4. The method as claimed in claim 1, wherein the step of determining the resist film exposure time includes analyzing the received temperature data and an error value in a pattern size.

20 5. An exposure control apparatus in a lithography system having a resist coating and developing apparatus and a wafer transferring mechanism, comprising:

a receiver for receiving resist film heat treating temperature from the resist coating and developing apparatus;

an optical system exposing at least a portion of the resist film to a light source; and

25 an optical system controller adapted to determine and control a resist film exposure time responsive to the resist film heat treating temperature data received from the resist coating and

developing apparatus.

6. The apparatus as claimed in claim 5, wherein the temperature is provided from temperature sensors disposed in the resist coating and developing apparatus.

5

7. The method as claimed in claim 5, wherein the temperature data is for a soft bake, a post exposure bake and a hard bake of the resist.

8. The method as claimed in claim 5, wherein determining and controlling the exposure time are implemented by analyzing the received temperature data and the error value in a pattern size.

9. A lithography system comprising:

a resist coating and developing apparatus including at least one resist film temperature sensor;

a wafer transferring mechanism; and

an exposure control apparatus including receiver for receiving resist film temperature data from the resist coating and developing apparatus, an optical system for exposing the resist film to a light source, and a controller for controlling the optical system to determine and control a resist film exposure time responsive to the resist film temperature data.

10. The system as claimed in claim 9, wherein the temperature data are for a soft bake, a post exposure bake and a hard bake of the resist.

11. The system as claimed in claim 9, wherein the controller determines the resist film exposure time responsive to the received resist film temperature data and a predetermined error

value in a pattern size.

10021508 "121101